

### **Amendments to the Specification**

Amend paragraph [0012] as follows.

[0012] Such implementation has several disadvantages. Characteristics such as large FSR and low loss are important for a micro-ring resonator, regardless the specific function it fulfills. However, achieving these characteristics simultaneously is difficult since the demands on the resonator shape conflict contradict. To achieve large FSR resonator, the best design would be a circular ring with high refractive index contrast to achieve tight mode profiles. However, these characteristics would result in high losses which stem from three different mechanisms: